

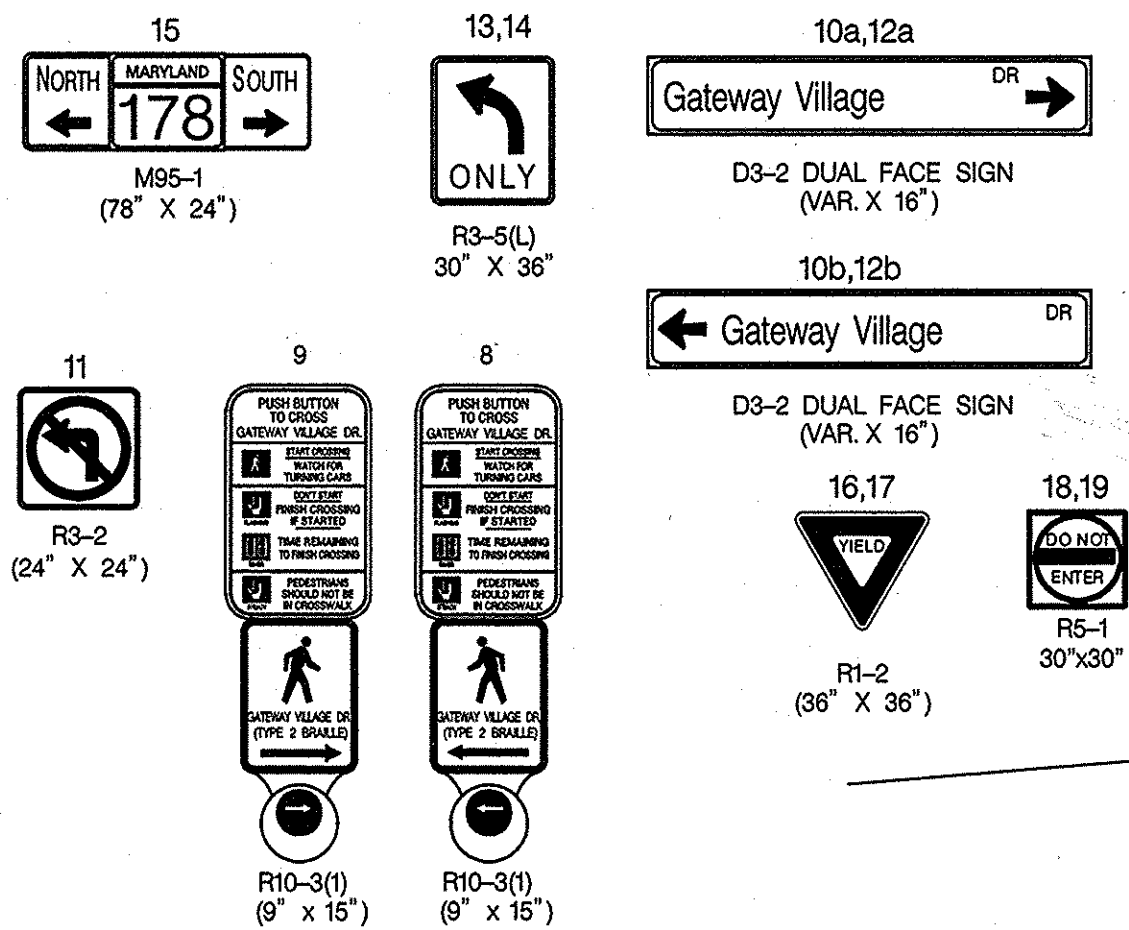
DRILL HOLES

DRILL HOLES

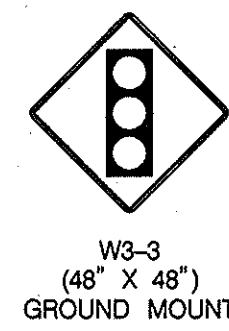
DRILL HOLES

MD 178 IS ASSUMED TO RUN
IN A NORTH-SOUTH DIRECTION

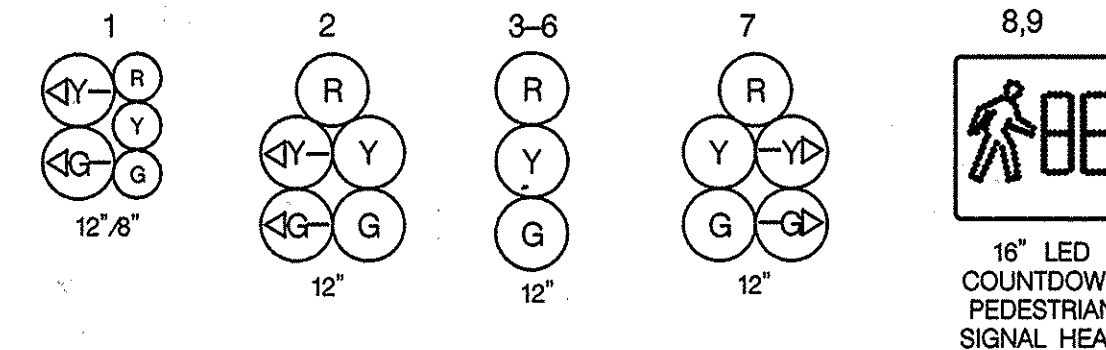
PROPOSED SIGNS



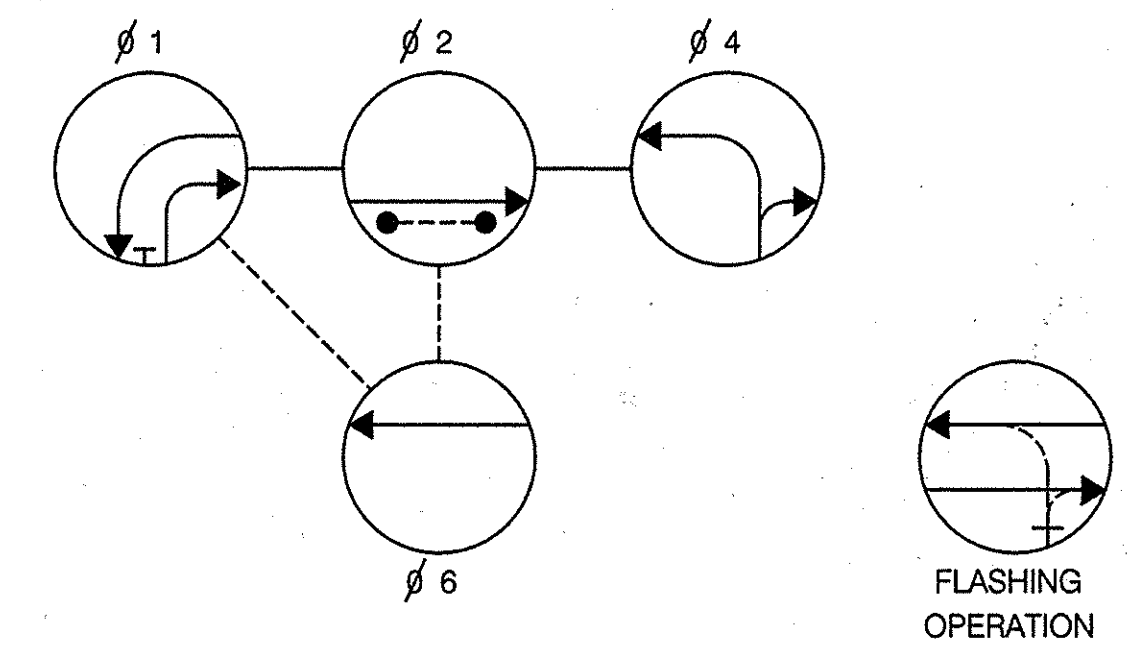
EXISTING SIGN TO BE REMOVED



PROPOSED L.E.D. SIGNALS



NEMA PHASING



PHASING NOTES:
1) PHASES ASSOCIATED BY A SOLID LINE WILL NOT OPERATE CONCURRENTLY.
2) PHASES ASSOCIATED BY A DASHED LINE MAY OPERATE CONCURRENTLY.

MALL ENTRANCE

PROPOSED VIDEO DETECTION CAMERA

SELECTIVE TREE
TRIMMING AS NEEDED

MD 178 (GENERALS HWY)

MD 178 (GENERALS HWY)

EXISTING GEOMETRICS

RIGHT OF WAY LINE

SEE GENERAL NOTES
NO. 9, AND 11, REGARDING
THIS HANDHOLE

RIGHT OF WAY LINE

ONE HANDHOLE LOCATED WITHIN
BREAK

GENERAL NOTES

- ALL TRAFFIC SIGNAL FOUNDATIONS SHALL BE INSTALLED AT THE FINAL SIDEWALK OR CURB GRADE FOR CLOSED SECTIONS, HIGHEST ROADWAY PROFILE GRADE FOR OPEN SECTIONS, TO MEET CLEARANCE AS SPECIFIED IN MD 816.03, MD 816.01, MD 818.02, MD 818.04. THE CONTRACTOR SHALL VERIFY ULTIMATE GRADES PRIOR TO THE INSTALLATION OF ALL SIGNAL EQUIPMENT.
- PUSHBUTTONS ARE TO BE LOCATED SO THAT THEY CAN BE ACTIVATED BY A PERSON IN A WHEELCHAIR FROM A 60" X 60" LEVEL LANDING AREA. A LEVEL LANDING AREA IS AN AREA WITH A CROSS SLOPE OF LESS THAN OR EQUAL TO 2%.
- LOCATION OF ACCESSIBLE PEDESTRIAN SIGNAL PUSHBUTTONS MUST MEET LOCATION REQUIREMENTS OF MUTCD SEC. 4E.09 AND FIG. 4E.2 AND THE NCHRP PUBLICATION, "ACCESSIBLE PEDESTRIAN SIGNALS: GUIDE TO BEST PRACTICE". IF NOT MET THE CONTRACTOR IS TO STOP WORK ON PUSHBUTTON LOCATIONS UNTIL A DESIGN WAIVER IS OBTAINED, APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.
- PUSHBUTTON IS TO BE LOCATED SO THAT A PEDESTRIAN IN A WHEELCHAIR LOCATED ON THE LEVEL LANDING AREA, DOES NOT HAVE TO REACH MORE THAN 18 IN.
- THE 10' SEPARATION BETWEEN PUSHBUTTONS IS TO BE MEASURED FROM THE FACE OF PUSHBUTTON, NOT CENTER TO CENTER OF POLE.
- ALL INTERNAL CABINET WIRING TO BE PERFORMED BY THE SHA SIGNAL SHOP. THE CONTRACTOR SHALL DELIVER THE APS CENTRAL CONTROL UNIT TO THE SHOP FOR TESTING AND PROGRAMING. PRIOR TO INSTALLATION, CONTACT MR. EDWARD RODENHIZER AT (410) 787-7650.
- THE LOCATION OF PROPOSED GEOMETRICS MUST BE CONFIRMED PRIOR TO THE INSTALLATION OF SIGNAL EQUIPMENT.
- DETECTORS AND CONDUIT SHALL BE INSTALLED PRIOR TO THE INSTALLATION OF PAVEMENT MARKINGS.
- ALL DETECTION FOR THE EXISTING SIGNAL AT MD 178 AND SAM'S CLUB ENTRANCE WILL BE DISCONNECT AND ABANDONED AT THE APPROPRIATE TIME.
- FOR ADDITIONAL PAVEMENT MARKING DETAILS PLEASE SEE PAVEMENT MARKING AND SIGNAL REMOVAL PLAN.
- PULL BACK ALL EXISTING FIBER OPTIC INTERCONNECT CABLES TO THIS HANDHOLE. PLEASE SEE INTERCONNECT PLAN FOR SPECIFIC DETAILS.
- THESE PLANS ARE APPROVED FOR CONSTRUCTION FOR A PERIOD OF ONE YEAR FROM THE DATE OF APPROVAL. SHOULD CONSTRUCTION NOT BEGIN WITHIN THIS TIME FRAME THESE PLANS SHALL BE NULL AND VOID WITHOUT A REVIEW FROM THE TRAFFIC ENGINEERING DESIGN DIVISION.
- ALL INTERNAL CABINET WIRING TO BE PERFORMED BY THE SIGNAL SHOP. THE CONTRACTOR SHALL DELIVER THE APS CENTRAL CONTROL UNIT TO THE SHOP FOR TESTING AND PROGRAMING.

LEGEND OF UNDERGROUND AND OVERHEAD UTILITIES

AERIAL CABLE	A
ELECTRICAL	E
TELEPHONE	T
GAS	G
SEWER	S
WATER	W
CABLE TV	TV

LANE DROP PAVEMENT MARKING LOCATION TABLE	
TRAFFIC CONTROL DEVICE	DISTANCE FROM STOPLINE
ARROWS	50'
ARROWS	130'

GATEWAY VILLAGE DRIVE

CONSTRUCTION DETAILS

- INSTALL 27 FT. MAST ARM POLE WITH TWIN 50 FT/70 FT. MAST ARMS, VIDEO DETECTION CAMERA, SIGNAL HEADS, AND SIGNS (INSTALL 2-3 IN. SCHEDULE 80, 90 DEGREE CONDUIT BENDS) CUT 50 FT. MAST ARM TO 40 FT. IN LENGTH
- INSTALL 27 FT. MAST ARM POLE WITH 38 FT. MAST ARM, 15 FT. STREET LIGHTING ARM, 250 WATT HPSV LUMINAIRE, SIGNAL HEADS, SIGNS AND VIDEO DETECTION CAMERA. (INSTALL 2-3 IN. SCHEDULE 80, 90 DEGREE CONDUIT BENDS)
- INSTALL 10 FT. PEDESTAL POLE WITH PEDESTRIAN SIGNAL HEAD, PUSHBUTTON AND SIGN. (NOTE: INSTALL 1-3 IN. SCHEDULE 80, 90 DEGREE CONDUIT BEND)
- INSTALL NEMA 6 BASE MOUNTED CABINET AND CONTROLLER WITH CONTROL AND DISTRIBUTION EQUIPMENT, FIBER OPTIC I/O PANEL, FIBER OPTIC REPEATER MODEM AND FIBER OPTIC TELEMETRY MODULES (NOTE: INSTALL 2-2 IN. AND 2-4 IN. SCHEDULE 80, 90 DEGREE CONDUIT BENDS)
- INSTALL ELECTRICAL HANDHOLE
- INSTALL NON-INVASIVE MICRO-LOOP PROBE WITH 1000 FT. LEAD-IN
- INSTALL MICRO-LOOP PROBE WITH 1000 FT. LEAD-IN
- VIDEO DETECTION ZONE
- INSTALL 1 IN. LIQUID TIGHT FLEXIBLE NON-MELTIC CONDUIT (DETECTOR WIRE SLEEVE)
- INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
- INSTALL DETECTABLE WARNING SURFACE
- INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
- INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED FOR ELECTRICAL SERVICE
- INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
- USE EXISTING HANDHOLE
- USE EXISTING CONDUIT
- REMOVE EXISTING GROUND MOUNTED W3-3 SIGN
- INSTALL 24 IN. HEAT APPLIED PREFORMED THERMOPLASTIC PAVEMENT MARKING
- INSTALL 12 IN. HEAT APPLIED PREFORMED THERMOPLASTIC PAVEMENT MARKING
- INSTALL 2 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
- PAVEMENT MARKING ARROW (SEE PAVEMENT MARKING PLAN)
- REMOVE EXISTING SIGN AND SUPPORT.
- INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
- INSTALL METEDED SERVICE PEDESTAL - EMBEDDED
- INSTALL 4" X 4" WOOD SUPPORT WITH RI-2 AND RI-5 SIGNS

TRAFFIC CONCEPTS, INC.

325 Gambrills Road
Suite E
Gambrills, MD 21054
(410) 923-7101
FAX: (410) 923-6473
TRAFFIC@TRAFFIC-CONCEPTS.COM

APPROVALS

DESIGNED BY: *T. Zaydel* 10/24/08
DRAWN BY: *T. Zaydel* 10/24/08
CHECKED BY: *K. Schmid* 10/24/08
F.A.P. NO.: *NA*
DIVISION CHIEF: *[Signature]* 10/24/08
OFFICE DIRECTOR: *[Signature]* 10/24/08

REVISIONS

SHA STATE OF MARYLAND DEPARTMENT OF TRANSPORTATION STATE HIGHWAY ADMINISTRATION OFFICE OF TRAFFIC & SAFETY TRAFFIC ENGINEERING DESIGN DIVISION TRAFFIC SIGNAL PLAN MD 178 AND GATEWAY VILLAGE DRIVE (ANNAPOLIS, MD)		
SCALE: 1" = 20'	DATE: 10-10-08	CONTRACT NO.: BW996M82
DESIGNED BY: T. ZAYDEL	COUNTY: ANNE ARUNDEL	
DRAWN BY: T. ZAYDEL	LOGMILE: 02077800.16	
CHECKED BY: K. SCHMID	T.I.M.S. NO.: F 921	
F.A.P. NO.: NA	TOD NO.:	
DRAWING NO.: TS-4278	SHEET NO. 1 OF 4	
FILE PATH: M:\2200\2210\Signal\DGN\signal.dgn DATE: Friday, October 10, 2008 AT 03:20 PM		